

ABSTRACT OF THE DISCLOSURE

An electrochemical cell assembly including a plurality of testing cells, a reference cell, and fluid connections between the testing cells and the reference cell. Each of the testing cells includes a working electrode, which is a rotating disk or ring-disk electrode, and a counter electrode. A chemical composition, whose intrinsic kinetic properties under defined mass-transfer are to be investigated, is deposited on the working electrode. The reference cell holds a reference electrode that serves as a common reference electrode for each of the testing cells. The assembly permits simultaneous testing of many chemical compositions under identical environment.